

Abstract

A method of making a gaseous fluid data sensor assembly for acquiring data regarding the ambient environment adjacent a surface of an airframe with adjacent air speeds below 40 knots (or another aerodynamic structure with low speed gaseous fluid flow adjacent thereto) having a flexible substrate adhesively conforming to the airframe surface, a conformable cover layer and a relatively thin air data sensor for sensing air pressure between the substrate and the cover layer. The method includes forming a flexible printed circuit on a polymeric film, attaching thin air data sensor to the printed circuit and attaching a flexible substrate to form a conformal air data sensor. The method may also include attaching a data acquisition circuit to the printed circuit and may still further include providing an optical interconnection between the air data sensor and the data acquisition circuit.